

----- ST REPORT ONLINE MAGAZINE -----

"-----"

"The Original Online ST Magazine"

December 26, 1988

Monday

Volume II No.67

=====

ST Report Online Magazine ''

Post Office Box 6672
Jacksonville, Florida
32236 ~ 6672
R.F. Mariano
Publisher - Editor

Headquarters Bulletin Boards

North

201-247-8252

Central

216-784-0574

South

904-786-4176

West

916-962-2566

Highlights

=====

- ~ From the Editor's Desk..... ~ CPU Report.....
- ~ ST REPORT Directory..... ~ Atari Steppin' Out.....
- ~ Spectre and Discovery..... ~ ST REPORT CONFIDENTIAL.....

and....much more!

=====
AVAILABLE ON: COMP-U-SERVE ~ DELPHI ~ GENIE ~ THE SOURCE
=====

From the Editor's Desk:

Christmas! A time for family, a time for love, a time for friendship and the beginning of the end for another year. In a few days we will be into a NEW YEAR. New Year's day is many things to folks around the world, but one thing it seems to be to all is a perfect opportunity to reconstruct old friendships and build new ones...Hopefully, we in the Atari userbase can do just that too.

The NEW YEAR presents many opportunities to all of us. The primary one of course is to unify! As a unified userbase, we will have a resounding effect on our wants, likes and dislikes. One can't help but notice the gradual but steady increase in user hope for Atari and it's plans for the both the company and the ST. We at ST Report can assure the entire userbase that we will support the ST to the best of our ability.

With this being our last issue of 1988, it reflects many things that have occurred throughout the year. Some issues were worthwhile some really were a waste of time. But, as we said before, all were a learning experience for everybody, particularly ourselves. The New Year promises to be a very interesting year. With our new CPU Report receiving positive mail we will expand it as it's popularity grows. We have a number of new features in store for the readers (all guaranteed to please).

At this time, we are very proud to announce we have begun accepting Names and Addresses for our mailing list for the first in a series of complimentary issues of ST Report's cousin..CPU NEWSLINE '' a HARD COPY, bimonthly newsletter. Just leave your address in E-mail or send us a postcard to our address listed above.

To each and everyone of our readers we wish a very

Happy New Year!

As always, please, do not drink and drive.....

Ralph.....

:HOW TO GET YOUR OWN GENIE ACCOUNT:

To sign up for GENie service: Call: (with modem) 800-638-8369.

Upon connection type HHH (RETURN after that).

Wait for the U#= prompt.

Type XJM11877,GENie and hit RETURN.

The system will prompt you for your information.

THE GENIE ATARI ST ROUNDTABLE - AN OVERVIEW

The Roundtable is an area of GENie specifically set aside for owners and users of Atari ST computers, although all are welcome to participate.

There are three main sections to the Roundtable: the Bulletin Board, the Software Library and the Real Time Conference area.

The Bulletin Board contains messages from Roundtable members on a variety of Topics, organized under several Categories. These messages are all open and available for all to read (GENie Mail should be used for private messages). If you have a question, comment, hot rumor or an answer to someone else's question, the Bulletin Board is the place to share it.

The Software Library is where we keep the Public Domain software files that are available to all Roundtable members. You can 'download' any of these files into your own computer by using a Terminal Program which uses the 'XMODEM' file-transfer method. You can also share your favorite Public Domain programs and files with other Roundtable members by 'uploading' them to the Software Library. Uploading on GEnie is FREE, so you are encouraged to participate and help your Roundtable grow.

The Real Time Conference is an area where two or more Roundtable members may get together and 'talk' in 'real-time'. You can participate in organized conferences with special guests, drop in on our weekly Open COnference, or simply join in on an impromptu chat session. Unlike posting messages or Mail for other members to read at some later time, everyone in the Conference area can see what you type immediately, and can respond to you right away, in an 'electronic conversation'.

CPU REPORT ''
=====

By Michael Arthur

Dream Computer Systems: Who's really the best

Part II:

In Part I of this Series, I showed a list of the most powerful Dream Systems that could be configured in the microcomputer market. While there were newer computers that could have been included, the list was generally accurate. Now I will compare the Dream Systems, their various features being stacked against each other to determine which ones you could safely consider the "best".

Now, making up a list of Dream Systems might seem useless and contrived, but it seems that not only is it a pretty good way to see how powerful a computer can be configured, but that seeing the high-end of the market can greatly help determine what capabilities OUR computers may have in the near future....

Here is a Graph of the features of each Dream System:

Dream Systems List:

(Comparison of each Systems' Optimal Features)

System Features	Main Chips, MEGS of RAM	Speed of System	Hard Drive Storage	Expansion Slots	Graphics Displays Best Resolution(s)
IBM 386 System	80386/80387 Four Megs	25 MHZ	300 Megabytes	Eight IBM PC/AT	640*480*256 Colors
Mac IIx System	68030/68882 Four Megs	16 MHZ	300 Megabytes	Six NuBus	640*400*256 Colors
Amiga 2000 System	68020/68881 Five Megs	16 MHZ	150 Megabytes	Seven Zorro II	320*200*4096 Colors
NeXT System	68030/68882 Eight Megs	25 MHZ	670 + Megabytes	Three NuBus	1008*800 w/Monochr. (Color in future)
Mega 4 ST System	68000 Four Megs	16 MHZ	250 Megabytes	Eight Mega ST	320*200*16 Colors
					1280*960 w/Monochr.

Based on both this graph, and the System Descriptions, I have made these Standings:

IBM 386 Dream System: Second Place

While the IBM system is very well rounded in features, and has all the power of a Dream System, the Macintosh is better in graphics, and the NeXT system is superior to in many other aspects.

Mac IIx Comparison:

IBM is superior to the Mac IIx in speed and the number of Expansion Slots, and is equal in Hard Disk Storage, but it is inferior in graphics. Since the VGA Extended Modes can serve just as well as the Mac Graphics, the IBM scores higher than the Mac IIx.

Amiga Comparison:

IBM is superior to the Amiga in speed (although you can get 25 MHZ 68020's), Hard Disk Storage, and Graphics. It is roughly equal in the # of Expansion Slots. Because the 80386 is also more powerful than the 68020, the IBM scores higher than the Amiga.

NeXT Comparison:

IBM is only superior in # of Expansion slots. Besides that, there is no comparison between these two systems. The NeXT is just as fast, has more Hard Disk Storage, and has a higher resolution. If you can wait for color, the NeXT scores much higher than the IBM.

Mega ST Comparison:

IBM is superior in speed and Storage, equal in # of Expansion Slots, and is inferior only in Monochrome Resolution. Also, since the 80386 is apparently more powerful than the 68000, the IBM wipes out the ST.

Macintosh IIx Dream System: Fourth Place

Strangely, while the Mac IIx is unbeatable in Graphics, it seems to falter in the area of speed, and is seemingly not well rounded for a system that is supposed to be the successor of the Mac SE. Also, other Dream Systems beat it based on its disparities.

Amiga Comparison:

The Mac is superior in the areas of graphics and Hard Disk Storage, is roughly equal in # of expansion slots and speed, and is inferior only in Megabytes of RAM. Also, since the 68030 is more powerful than the 68020, the Mac II scores higher than the Amiga.

NeXT Comparison:

The Mac is superior in graphics and # of Expansion Slots, and is inferior in everything else.... The NeXT has more Storage, more RAM, and is MUCH faster. As always, if you can wait for color, the NeXT scores much higher than the Mac IIx.

Mega ST Comparison:

The Mac is superior in graphics, is roughly equal in Hard Disk Storage, speed, and Megs of RAM, and is inferior in the # of Expansion Slots. But as the 68030 is more powerful than the 68000, the ST has no Math Chip, and there are more expansion cards for the Mac, the Mac IIx scores higher than the ST.

Amiga 2000 Dream System: Third Place

The Amiga, surprisingly, came out of this Comparison as one of the stronger systems. It is well rounded, you can get faster 68020's for it, and its only weakness is the high price of Hard Disk Drives. It is not at the caliber of the IBM System, but is a very decent System indeed.

Macintosh IIx Comparison:

This was already discussed, but something else needs to be emphasized. While the Mac IIx is more powerful in Hard Disk Storage and Graphics, and is equal in speed, you can get faster 68020 chips (up to 25 MHZ) for the Amiga (making it faster), and the Amiga has more expansion cards than the Mac II. Based on this, you could make a strong case for the Amiga's scoring higher than the Mac IIx. Also, there are 68030 cards being developed for the Amiga....

NeXT Comparison:

The Amiga is superior only in the # of Expansion slots, and the NeXT is faster, has more RAM and Hard Disk Storage, and the 68030 is more powerful than the 68020. The NeXT only needs color to wipe out the Amiga.

Mega ST Comparison:

The Amiga is different in many aspects except for Hard Disk Storage. It is roughly equal in speed and # of Expansion Slots. As the 68020 is more powerful than the 68000, the Amiga scores higher than the Mega ST.

Even though you probably knew this already, the NeXT just is more powerful than the other Dream Systems. It is VERY well balanced in its features, and since its features are VERY good, it comes out the winner. Only the lack of color (a serious oversight, which will be corrected soon) prevents its victory from being total....

Amiga Comparison:

The NeXT is superior in Hard Disk Storage, amount of RAM, and in speed, and is inferior in both the # of expansion slots and in graphics, due to the NeXT's lack of Color. Although there are faster 68020's for the Amiga, the 68030 is still more powerful than the 68020, so you could safely say that it scores higher than the Amiga.

Mega ST Dream System:

As the Atari ST was only meant for the lower end of the market, I apologize greatly for including it in my list (which was meant to show the high end of the market). Since the ST does not have the improved features of a Mac II or NeXT, I should not have expected it to do as well as they, and I am sure that if I were comparing the ST to the Mac SE, that the ST would win handily. But I find it truly tragic that while Apple and IBM were busy developing products like the Mac II and PS/2, that Atari was not also significantly improving their computer.

However, Sig Hartmann of Atari has indicated that the 68030 TT (to be mentioned later) will be a "souped up" version of the Atari ST, having greater capabilities intended for people wanting a higher-end Atari.

(Note to the Editor: Mr. Hartmann had an interview with Atari Explorer in the Nov/Dec 1988 where he said this)

Given this, I speculate that if the ST held up as well as it did against vastly superior systems such as the Mac II, that when Atari makes a New Generation ST, that it will be more powerful than even systems like NeXT's, and that a "68030 ST" Dream System will do a LOT better than the Mega ST did this time....

So as to be fair, I have included a list of Upcoming Dream Systems, so accurate comparisons can be made between present and future computers. Curiously, while every one of these computers was more powerful than any current Dream System, the Mac IIx System remained unbeatable in graphics.

Upcoming Systems' Features:

System Features	Main Chips, Mogs of RAM	Speed of System MHZ	Hard Drive Storage Megabytes	Expansion Slots VME Bus	Graphics Displays/ Best Resolution(s)
Atari 68030 TT	68030 Four Mogs	16-20 MHZ	80 Megabytes	Eight (?) VME Bus	640*400*16 Million Colors
Abaq Transputer	13 T-800's Four Mogs	1/4 of Cray XMP	40 Megabytes	Four Abaq	1024*768*256 Colors
Cheetah	80386/80387	33 MHZ	300	Eight	1280*960*16 Colors
					640*480*256 Colors

386 System| Five Megs |

|Megabytes |IBM PC/AT|1024*768*16 Colors |

(Note: Keep in mind that these specs are not final, and that when the actual systems are introduced, they will probably differ in some way from the systems that are shown.)

System #6, the Atari 68030 TT, has a 68030 chip, 4 Megs of RAM, and an 80 Megabyte Hard Drive, as well as a VME Expansion Bus with an unknown number of slots. Cost is reportedly around 3000-3500 dollars.

Resolutions: 640*400 with 16 Million Colors at the same time
1024*768 with 256 Colors out of 16 million
1280*960 with 16 Colors out of 16 million

Comparisons with Other Systems: There are great innovations in the areas of Graphics and Expansion Cards, and the 68030 TT is equal to the NeXT computer in many of the other aspects covered. But since the NeXT is also a UNIX machine, the 68030 TT may not have as large an impact on the UNIX market as hoped.

However, it seems that the 68030 TT will not only be compatible with present Atari ST software, but will be a new type of ST altogether. If this is so, then the 68030 TT will be a formidable entry into the middle end of the microcomputer market, and will be an excellent successor to the Atari ST.

System #7, the Abaq Transputer, is an Abaq with a T800 Chip, 4 Megs of RAM a 40 Megabyte Hard Disk, and 4 Expansion Slots. To this I have added Four Abaq Expansion Cards, with 4 T800 Chips on Each Card. Each T800 has its own Math Coprocessor, and can run at 10 MIPS, and since the Transputer is a Parallel Processor, you can have additional T800's working at the same time. Resulting in that 17 T800's let the Abaq run at 170 MIPS, about 1/4 the speed of a Cray X/MP Supercomputer. Cost of system is unknown.

Resolutions: 512*480 with 16 Million Colors at the same time
1024*768 with 256 Colors out of 16 Million
1280*960 with 16 Colors out of 16 Million

Comparisons with Other Systems: The Abaq is MUCH faster than other systems, has pretty decent graphics, and is very powerful. It is an excellent machine, which should be a player in the high-end part of the computer industry. Also, I predict that it will dominate the growing market for parallel processing computers, becoming the first such standard in the industry....

System #8, the Cheetah 80386 system, is an IBM Clone with a 33 MHZ 80386, an 80387 Math Chip, 300 Megabyte Hard Drive, 5 Megabytes of RAM, and a Designer VGA Card. Cost is enormous, and not worth mentioning....

Resolutions: 320*200 with 256 Colors out of 256,000
640*480 with 16 Colors out of 256,000

Extended Mode has 640*480 with 256 Colors out of 256,000
800*600 with 16 Colors out of 256,000

800*600 with 256 Colors out of 256,000
1024*768 with 16 Colors out of 256,000

Comparisons with Other Systems: This system will be a formidable Clone, mainly because of its 33 MHZ 80386. Although other IBM Clone Makers will be coming out with similar products, the Cheetah's other features ensure its being a major factor in the high-end IBM Market, and remaining quite a powerful system for years to come.

Both the Abaq and the Cheetah 386 system, though, as well as the other Dream Systems mentioned, are very interesting prospects for another topic which seemingly began with the NeXT System, over which Computer would be the "Machine of the Nineties...."

While no person can say which it may be, one thing is for certain:

It will have to have features equalling (or surpassing) the Dream Systems shown above in order to establish a standard in an industry which does not easily accept new computer systems. And although all these computer systems are very powerful, only a few can become dominant in the computer industry....

But ponder, if you will, these questions for next week:

- 1) If you had actually gotten one of the Dream Systems discussed above for this Christmas, how would you have specifically used it?
- 2) What if Digital Research developed a new GEM?

=====***=====

CPU REPORT CONFIDENTIALÂ ª
=====

Lewiston, NY ReadySoft Inc. has announced a \$150.00 Mac Emulation Board for the Amiga, which will support Mac 64K and 128K ROMs in a Magic Sac-type configuration. No word on the level of compatibility, its ease of use, or on how much memory it will support. It will be shipping in Jan/Feb 1989.

Armonk, NY IBM recently started development on a version of OS/2 for the 80386 machines. It will support 32-Bit Data Segments, multitask DOS programs, run OS/2 programs without modifications, and have faster memory access. IBM and Microsoft are aiming to release it in the Summer of 1990.

West Chester, PA Commodore has started to enter into the educational market, setting up a network of 150 Educational Dealers (many of whom are already Amiga Dealers), and starting a large advertising campaign to sell the C-64 and Amiga 500 to Schools and Universities.

New York, NY Seven companies (including IBM, Hewlett Packard, and

DEC) have announced their backing of the Open Software Foundation, an independent corporation whose goal is to establish a new systems/software standard for UNIX. AT&T, who is also developing a new version of UNIX in conjunction with Sun Microsystems, has declined to join the OSF....

* OFFICIAL ST REPORT DIRECTORY *

=====

1988 - 1989

HAPPY NEW YEAR!

=====

: STR001.ARC
Description:
ST Report.....THE FIRST ISSUE.....JUNE 1987

: STR002.ARC
Description:
ST REPORT ISSUE NO. 2
JULY 04, 1987

: STR003.ARC
Description:
~ Atari Fest Cancelled....BBS Messages.....New Products...
~ Copyright Info.....How to use ARC....Telecommunications
~ Atari News Update.....Reader Comments...SysOp Rights
~ CES Report.....8 Bit News

: STR004.ARC
Description:
ST Report 4th edition.....

: STR005.ARC
Description:
~ Publisher's Page.....Garbage on the Line.....Review of Vegas G
~ Lock and Key for ST.....Hybrid Arts Contest.....New Products
~ News and Rumors MAM mag.BBS Spotlight.....Intnl Mail
~ ST Magazines II.....PC Pursuit.....Stone Age Ann.

: STR006.ARC
Description:
~ Intnl News Wire.....TOS ROMS Blit ver.....Dbase Conference
~ GENie Help.....VIP Professional.....Datatrieve Review

~ Atari buys Federated..D. Mihocka CIS CO.....ST Magazines III

: STR007.ARC

Description:

- ~ Atari Magic Show I.....Atari Magic Show II.....Disk Drives for the ST
- ~ 80 Track 3.5 disks!.....Review-Informer-Easel ST..GDOS Help
- ~ Scientific ST.....

: STR008.ARC

Description:

- ~ Atari News.....New Products,Chess ST - Word Up....Techie News
- ~ Teletalk.....THE MEGAS ARE COMING!

: STR009.ARC

Description:

- ~ Atari News.....MEGA 2/4 RELEASED!.....New Products
- ~ Upgrade Info.....Hdug Price List.....Interlink ST
- ~ FCC Update

: STR010.ARC

Description:

- ~ Atari News.....Silent Service and Rogue.....BBS List
- ~ FoReM ST.....ST Xpress Debut.....ST Upgrade Kit
- ~ CDROM Update

10-24-87

: STR011.ARC

Description:

- ~ Atari Comdex News....Antic Comdex News.....Software at Comdex
- ~ Hayes 1200 Mod.....ST Mods.....Atari C/PM Emulator
- ~ Unarcing w/ SS Drive DC AtariFest News

11-07-87

: STR012.ARC

Description:

- ~ Atari Scuttlebits.....Shareware.....Lunar Lander...
- ~ Terminal Settings

11-21-87

: STR013.ARC

Description:

- ~ 2cnd Disk Drive to ST.....THE ABAQ.....Techie News
- ~ Garbage on the Line.....IBM Emulator.....MIDI News

12-05-87

: STR014.ARC

Description:

- ~ Atari News.....GFA Errata (BUGS).....Michtron Contest..
- ~ Educational SWare Cable Tech Expo.....Forem News
- ~ Error 164.....Probing your ST

12-19-87

: STR015.ARC
Description:
~ A NEW Atari Factory!.....Computer Health.....Probing your ST
~ Atari Drives.....SAGA of the MEGA.....GFA Help
12-30-87

: STR016.ARC
Description:
~ Reader Comments.....FCC Update.....Star Trek Hints
~ Hard Disk History....Probing your ST....Final Words
01-06-88

: STR017.ARC
Description:
~ Winter CES News.....ProWriter Commands.....Probing your ST
~ ST Usergroup Profile.....Atari Scuttlebits.....Next Week
01-13-88

: STR018.ARC
Description:
~ Editor's Desk.....Atari News.....Magic SAC
~ D/S Drives.....US Gov't BBS List.....Ansi Codes
01-20-88

: STR019.ARC
Description:
~ Atari News.....520 STFM 1mb.....TrackBall.....
~ Supra Fix.....Analog CO.....Toll computer #'s
~ Probing your ST
01-27-88

: STR020.ARC
Description:
~ Atari News.....Garbage on the Line.....Avatex Modem.....
~ MaxThink Rev.....New Products.....Probing Your ST
~ CES Report.....Comp U Serve Overview
02-03-88

: STR021.ARC
Description:
~ Atari News.....Atari Scuttlebits.....Survey Results
~ Nite Lite Multiline....ST Desktop.....Star Trek
~ Zoomracks Update.....ST Transformer Update....Databases
02-10-88

: STR022.ARC
Description:
~ UserGroup List.....Installing an 80Trk FD55F Drive
~ What's Up Atari?.....Garbage on the Line....Unix BBS List
02-17-88

: STR023.ARC
Description:
~ Editor's Desk.....Atari News.....NEC Monitor
~ Tax Time 87.....Gunship Review.....Dungeon Master
~ ST News Lock & Key.....Mac Report.....Crossroads
02-24-88

: STR024.ARC
Description:
~ Editor's Desk.....Atari News.....MAC Report.....IBM News
~ QMI Update.....Michtron Update....Modem Noise Killer
~ Regent Products.....FTL CO
02-29-88

: STR025.ARC
Description:
~ Editor's Desk.....Garbage on the Line.....Benchmarks
~ 3/88 ST Express Mag..... Migraph New Products.....Sam T Speaks!
~ MAC Report
03-07-88

: STR026.ARC
Description:
~ Editor's Desk.....Antic Online News.....SX212 Review
~ GT100 Disk Drive.....Mac Report
03-14-88

: STR027.ARC
Description:
~ Editor's Desk.....Atari News.....PD Shelf.....FCC Update
~ Michtron BBS Mod.....WordUp Info.....Zoomracks
~ WORD PERFECT YES...OR NO! The Article that Started it All!!
03-21-88

: STR028.ARC
Description:
~ Editor's Desk.....ST Virus.....Antic Online
~ Atari News.....W.P. review.....SPA Notes
~ Probing Your St.....Line Noise
03-28-88

: STR029.ARC
Description:
~ Editor's Desk.....Atari News.....PD Shelf
~ Michtron Update.....New Products.....Mac Report
~ A Few Words.....Digisound Review....Turbo ST Review
04-04-88

: STR030.ARC
Description:
~ Editor's Desk.....F-Neting.....PD Shelf
~ Computer Calendar.....Mac Report.....Atari Scuttlebits
~ Reader Comments.....Compute Protest...KX-P1524 Review

04-11-88

: STR031.ARC
Description:
~ Editor's Desk.....MAC REPORT.....Timeworks DTP
~ Light Gun Mods.....Modem Guide.....FCC Hoax
~ Atari News.....Probing Your ST.....PC Ditto
04-18-88

: STR032.ARC
Description:
~ Editor's Desk.....Symmetry Review.....Red October
~ Destroying the HD Myth...Neodesk NEW PRODUCT....PD Shelf
~ Garbage on the Line.....NEC MultiSync.....Reader Mail
04-25-88

: STR033.ARC
Description:
~ Editor's Desk.....A Serious Observation.....UIS I
~ GFA Reference.....BBS 10 Commdmets.....Aegis ART
~ WP CIS CONFERENCE.....GFA Draft.....NEWS Line
05-02-88

: STR034.ARC
Description:
~ Editor's Desk.....FoReM V2.2 Update.....Apple & ?
~ AIR WARRIOR Conference...Chinon Mysteries ExposedEasieST RAM
~ SLM 804 BUGGY?.....Word Starved.....Saga Continues
05-09-88 **** A Visit with an Old Friend ***

: STR035.ARC
Description:
~ Publisher's page.....Multi-Sync to ST.....N.Harris CO
~ Interlink and PC Pursuit..ST REPORT CONFIDENTIAL
~ SPRING COMDEX NEWS.....Vdos.....Neodesk Review
05-16-88 ***** NEW TOS (1.4) TO BE READY IN FALL! *****

: STR036.ARC
Description:
~ EXCLUSIVE! WP & ATARI.....NO COST UG PROJECT.....CD/ROM Report
~ WORD PERFECT REVISITED....Dawn Gordon Builds a 386!..SHADOW!
~ Video Key New Product.....C Programming.....Revolver!
05-23-88 ***** WP TELLS IT LIKE IT IS *****

: STR037.ARC
Description:
~ Publisher's Page.....Editor's Desk.....COMDEX SPRING 88.....
~ Reading Atari Around...SCOUT WORLD 88 & Atari..Visiting Federated.
~ Open Letter To Atari...Atari DTP Challenge!....MACRO MOUSE.....
05-30-88 *** INSIDE FEDERATED ***

: STR038.ARC

Description:

- ~ From the Editor's Desk..... ~ All About GDOS and more....
- ~ STAR NX 1000 Review..... ~ WP Co Delphi.....
- ~ ST REPORT CONFIDENTIAL..... ~ A Temper Tantrum.....

06-06-88 *** CIS FACELIFT ***

: STR039.ARC

Description:

- ~ From the Editor's Desk..... ~ Intersect Success Story....
- ~ The Discovery Cartridge..... ~ ST REPORT CONFIDENTIAL.....
- ~ Atari ON THE MOVE..... ~ My Computer Store.....

06-13-88 *** SUMMER CES COVERAGE ***

: STR040.ARC

Description:

- ~ From The Editor's Desk..... ~ Wholly Macro - A Review.....
- ~ GENie MAC SAC Conference..... ~ ARC Ver. 5.21 Notes/Comments...
- ~ ST REPORT CONFIDENTIAL..... ~ Getting Started W/MAC SAC.....

06-20-88 *** ATARI SUICIDE? ***

: STR041.ARC

Description:

- ~ From the Editor's Desk..... ~ Remember When? Atari.....
- ~ Laser Quality without the PRICE ~ ISGUR Reports on Atari....
- ~ WHY ALL THE DOUBLE TALK?..... ~ ST REPORT CONFIDENTIAL....

06-27-88 *** A PLEA ..A CALL TO PENS! ***

: STR042.ARC

Description:

- ~ From the Editor's Desk..... ~ As the Modem Trips.....
- ~ Hard Disk FACTS & FIGURES..... ~ ST XFORMER II.....
- ~ ST REPORT CONFIDENTIAL..... ~ THE BEAT GOES ON.....

07-04-88 *** BYTE MAGAZINE & NEIL HARRIS ***

: STR043.ARC

Description:

- ~ From The Editor's Desk..... ~ Arc Shell Docs.....
- ~ About.. #s 41 and 42..... ~ GFA Basics.....
- ~ ST REPORT CONFIDENTIAL..... ~ The ST Book.....

07-11-88 *** JAPAN CHOKES USA ON DRAMS ***

: STR044.ARC

Description:

- ~ From The Editor's Desk..... ~ Intersect Conference on GENIE..
- ~ Leaning Toward The Future..... ~ Nostalgia Remember When?.....
- ~ The Transputer..... ~ ST REPORT CONFIDENTIAL.....

07-18-88 *** SAM TRAMIEL POURS OIL ***

File # 58 Treasure: STR045.ARC

Description:

- ~ From The Editor's Desk..... ~ Forem 2.2b Updates.....
- ~ Nostalgia, Remember When?..... ~ GFA Basics A & B.....
- ~ ST REPORT CONFIDENTIAL..... ~ A Dirty Word.....

07-25-88

*** ATARI DEVELOPER KIT EVALUATED ***

: STR046.ARC

Description:

- ~ From The Editor's Desk..... ~ GEnie ST Xformer Conference.....
- ~ GEnie Roundtable Overview..... ~ Nostalgia, Remember When?.....
- ~ Atari Scuttlebits..... ~ ST REPORT CONFIDENTIAL.....

08-01-88

*** 520 STFM SHIPPED W/ D/S DRIVES! ***

: STR047.ARC

Description:

- ~ From The Editor's Desk..... ~ SLM (slime) 804 REVEALED!.....
- ~ Open Letter to Atari..... ~ Is This the SAME Atari???.....
- ~ The Alarm Rings on..... ~ Nostalgia, Remember When.....

08-08-88

*** TOM HUDSON SPURNS ATARI ***

: STR048.ARC

Description:

- ~ From The Editor's Desk..... ~ Atari News.....
- ~ Nostalgia, Remember When?..... ~ ST REPORT CONFIDENTIAL.....
- ~ How's Yer FAT?..... ~ A Healthy Wallet.....

08-15-88

*** SPECTRE 128 IS REAL! ***

File # 62 Treasure: STR049.ARC

Description:

- ~ From The Editor's Desk..... ~ Late Breaking News.....
- ~ ArcShell Docs..... ~ Surgery is a CURE.....
- ~ The Twilight Zone..... ~ ST REPORT CONFIDENTIAL.....

08-22-88

*** WHAT IS A STACY? LAPTOP ***

: STR050.ARC

Description:

- From The Editor's Desk..... ~ GFA Basic Ver. 3.....
- The Federated Saga..... ~ ERGO Stick.....
- ST REPORT CONFIDENTIAL..... ~ BOOTSTRAPPING ATARI.....

08-29-88

***** FEDERATED EATING ATARI UP *****

: STR051.ARC

Description:

- ~ From The Editor's desk..... ~ TOS IN ROM a description.....
- ~ BOOTSTRAP--A SECOND LOOK..... ~ A Day at the Races A review.....
- ~ The Beat Goes ON..... ~ ST REPORT CONFIDENTIAL.....

09-05-88

*** NEIL HARRIS FIGHTS BACK! ***

: STR052.ARC

Description:

- ~ From The Editor's Desk..... ~ SHADOW A Full Review.....
- ~ GEnie Conference..... ~ DO IT TO IT.....
- ~ ST REPORT CONFIDENTIAL..... ~ Pro GEM Windows #3

09-12-88

*** SPECTRE 128 GOES ON SALE! ***

: STR053.ARC

Description:

- ~ From The Editor's Desk..... ~ The Presidential Conference.....
- ~ INSIGHTS, Atari's Future..... ~ ST Pro GEM #4.....
- ~ Shakespeare and FUJI..... ~ ST REPORT CONFIDENTIAL.....

09-19-88 *** ST GAME MACHINE IN 1989! ***

: STR054.ARC

Description:

- ~ From The Editor's Desk..... ~ The Presidential Joke!.....
- ~ Heros of the Lance..... ~ ST REPORT CONFIDENTIAL.....
- ~ ST REPORT AWARDS..... ~ The Beat Goes ON.....

09-26-88 *** NEIL HARRIS RESIGNS! ***

: STR055.ARC

Description:

- ~ From the Editor's Desk..... ~ THE SKY IS FALLING!.....
- ~ The Beat Goes On..... ~ Hard Disk Facts.....
- ~ ST REPORT CONFIDENTIAL..... ~ WORD PERFECT & ATARI.....

10-03-88 *** SPRING COMDEX PROMISES FAIL! ***

: STR056.ARC

Description:

- ~ From the Editor's Desk..... ~ Codehead Fine Products.....
- ~ The "PRESIDENTS" Conference?!?.... ~ Revolver.....
- ~ ST REPORT CONFIDENTIAL..... ~ THE BEAT GOES ON.....

10-10-88 *** ATARI TELLS DEVELOPERS - SELL TO EUROPE! ***

: STR057.ARC

Description:

- ~ From the Editor's Desk..... ~ TANDY and the ST.....
- ~ At What Price? LOYALTY..... ~ HE believes in AMERICA!.....
- ~ UPBEAT - MIDI BEAT..... ~ ST REPORT CONFIDENTIAL.....

10-17-88 *** NeXT DEBUTS! TO OVERSHADOW FALL COMDEX ***

: STR058.ARC

Description:

- ~ From the Editor's Desk..... ~ A Developer's Friend or Foe?....
- ~ NeXT in a Nutshell..... ~ Changing Times.....
- ~ ST REPORT CONFIDENTIAL..... ~ dBMAN VER. 5.....

10-24-88 *** DEVELOPERS NOT HAPPY WITH ATARI! ***

: STR059.ARC

Description:

- ~ From The Editor's Desk..... ~ Anaias Who?.....
- ~ A "Veteran" Retires..... ~ In Search of Atari.....
- ~ Italy and Atari..... ~ ST REPORT CONFIDENTIAL.....

10-31-88 *** PIRATES IN ITALY! **

: STR060.ARC

Description:

- ~ From The Editor's Desk..... ~ The Melting Pot Runneth Over....
- ~ DC Atari FEST..... ~ A NEW Blivett!.....
- ~ ST REPORT CONFIDENTIAL..... ~ The Archival BIT.....

11-07-88

*** ATARI FAVORS EUROPE! ***

: STR061.ARC

Description:

- ~ From The Editor's Desk..... ~ CIS Conference with ST Report.....
- ~ Elwood's Postscript..... ~ Pocket What?.....
- ~ ST REPORT CONFIDENTIAL COMDEX.. ~ Pro GEM Windows #12.....

11-14-88

*** COMDEX PREVIEWS and GUESSES ***

: STR062.ARC

Description:

- ~ From The Editor's Desk..... ~ COMDEX - COMDEX - COMDEX.....
- ~ THANKSGIVING IS FOR EVERYONE.... ~ Goodies Galore.....
- ~ ST REPORT CONFIDENTIAL..... ~ A HARD DRIVE FOR ALL.....

11-21-88

*** COMDEX - STACY - TT - ATW ***

: STR063.ARC

Description:

- ~ From the Editor's Desk..... ~ PageStream.....
- ~ The Versatile ST..... ~ XL/XE Xformer Support.....
- ~ Discovery Delivers..... ~ Pro GEM Windows #14.....

11-28-88

***** ATARI - TURNING POINT? *****

: STR064.ARC

Description:

- ~ From the Editor's Desk..... ~ COPYRIGHT?.....
- ~ DISCOVERY & SPECTRE..... ~ ST XFORMER SECRETS!.....
- ~ Pro GEM Windows # 15..... ~ ST REPORT CONFIDENTIAL.....

12-05-88

*** ST REPORT goes INTERNATIONAL ***

: STR065.ARC

Description:

- ~ From the Editor's Desk..... ~ Spectre 128 and Discovery.....
- ~ Living in Atari World..... ~ NEW on GENie.....
- ~ Pro GEM Windows # 16..... ~ ST REPORT CONFIDENTIAL.....

12-12-88

**** GOOD and BAD SYSOPS ****

: STR066.ARC

Description:

- ~ From the Editor's Desk..... ~ FOND FAREWELL.....
- ~ CPU REPORT (A sneak preview)..... ~ A Different Viewpoint.....
- ~ ST REPORT CONFIDENTIAL..... ~ Interlink Ver. 1.85!.....

12-19-88

***** MERRY CHRISTMAS *****

: STR067.ARC

Description:

- ~ From the Editor's Desk..... ~ CPU REPORT.....
- ~ ST REPORT Directory..... ~ Atari Steppin' Out.....
- ~ Spectre and Discovery..... ~ ST REPORT CONFIDENTIAL.....

12-26-88

***** HAPPY NEW YEAR *****

SIG HARTMAN VISITS PAC

=====

By Bill Pike (PAC)

On December 5th Mr. Sig Hartman joined the PAC for their first ever Christmas Party. Mr. Hartman brought the latest news from Atari to our user group along with quite a few other goodies for the raffle.

This project started back in August when David Moore (Special Project Director) paid a visit to Atari in Sunnyvale. As we drove to the airport we still were not convinced that Mr. Hartman would arrive. We felt that we were still working with the old Atari that would promise anything but give little if nothing.

After a lot of running around to get things ready for the Christmas Party in the morning, and massive cleaning of a car both Dave and I were more than a little nervous. There we were in our "I Speak Atari" hats trying to find out where the Short-Term parking was and checking our watches every few minutes.

We finally got to the gate and still were discussing what to do if Mr. Hartman was a No-Show. Then surprise, surprise, surprise, who came walking out of the boarding ramp but a white haired gentleman with a brown garment bag and attache case. There were also two cardboard boxes waiting for us in the baggage area with the Fuji symbol on them full of goodies for the raffle. ATARI HAD COME THRU. As it turned out Sam Tramiel could not have picked a better spokesman than Mr. Sig Hartman.

Most of the trip to the hotel was spent in a three-way discussion of the lack of support for USER-GROUPS as well as the lack of support for Atari owners. Sig replied to our questions, admittedly some of them were rather pointed, stating the new policy of Sam Tramiel and Atari of MUCH greater support for User Groups and Atari owners. Also brought up during the trip was Sam Tramiel and Atari's support and lack thereof for the 8-Bit systems. Sig said that Sam Tramiel was anxiously looking to support the 8-Bit but that there is a lack of software being written.

The new Diamond (ST Jr.) was mentioned to him and he said that Sam Tramiel and Atari had received several copies of this program but it still had some bugs in it. He said that if Atari can get a bug free version of the program that Sam Tramiel would consider including it with the XE series computers as well as helping advertise and market the product. There wasn't much time left after the previous grilling to discuss much else except what time we would pick him up from the hotel to go to meeting. The meeting started out with, what else, food. There were sandwiches, soda, potato chips, and cake with the Atari symbol on it. After the eating slowed down it was Mr. Hartman's turn.

The first thing that Mr. Hartman said was to assure us of a

fundamental change in the policy of Atari. Sam Tramiel and Atari is going to give much more support the User-Groups. Some of this support will be in the form of a much closer contact between the user groups and Sam Tramiel and Atari. The support will also come in the form of donated, by Sam Tramiel and Atari, equipment and software. There was also discussion of a published list of all the User-Groups in the United States and a listing of all the Atari User-Groups worldwide. Another thing was mentioned was that the Federated Stores that Atari purchased would be giving out lists of local User-Group information and the possibility that Atari might pay for 1 years membership to a local User-Group with each computer purchased.

Sam Tramiel and Atari was also interested in assisting user groups to have shows and public events, Atari would loan front money as well as assistance in contacting other groups who have put on shows. We were assured a number of times of the support of the 8-Bit machine as well as the ST machines. Several times Mr. Hartman ask, almost pleaded for those who were writing 8-Bit software to please submit the programs to Sam Tramiel and Atari for possible purchase and royalties.

There were questions regarding the lap-top ST. Mr. Hartman said that it was still in unfinished form and that Atari was still working on it. The questioning moved to the TT machine (68030 processor based, True Thirty Two bit machine). He stated that the machine would be upward compatible with the existing ST's and Megas. Also that the TT would be able to run either the standard ST operating system or UNIX 5.3. There were questions regarding the lack of ST's and Megas in the USA and why were all the machines being shipped to Europe. The reply was that the machines were selling faster than they could be produced, however that Sam Tramiel is committed to shipping many more machines (ST's and Megas) to the U.S. in the coming year even though this might cut into the European market. The DRAM shortage was discussed and we were informed that this had alleviated to some degree.

The possibility of a 16-Bit Game Machine was brought up. We were informed that this is in the works. The long talked about Atari PC was asked about. Yes, Sam Tramiel and Atari is in the final stages of preparing to market this in the U.S. Yes, the machine is basically what the advertising has said. The Transputer (Abaq) was spoken of and that it still was under development as a stackable unit to the Mega machines. The machine would have true multi-processing capability as well as a expansion port to daisy-chain several Transputer units together for added speed and memory. The possibility of a add-on math co-processor for the ST and Mega machines was asked about. The reply was that nothing was immediately in the works for this.

Several other questions were adeptly handled by Sig then the meeting went to the distribution of goodies, by raffle. There were two XEGS's (XE Game Machines), copies of the new word processor, for the ST, Microsoft Write from Atari, about a dozen educational programs, and about a dozen game cartridges for the 8-Bit machines. All of this was donated to the club by Sam Tramiel. There was also a \$15 dollar Gift Certificate donated to the raffle by Portland Computer Accessories.

We would like to express our thanks to Sam Tramiel for the opportunity to meet with Mr. Hartman. We also appreciate the donation of all the software and hardware that made the meeting so successful. We look forward to a much closer relationship with Sam Tramiel and Atari than in the past.

Sam Tramiel and Atari were willing to send one of it's most able executives to meet with a SINGLE User-Group. We hope that this foreshadows a much greater support of the User-Groups by Sam Tramiel and Atari, possibly a rotating schedule of Atari people meeting with User-Groups. Atari is still supporting the 8-Bit machines in fact during the trip back to the airport Sig asked us to share the upgrade information on the 130XE machine. He was also taking some of our suggestions as far as a new 8-Bit with a 65816 microprocessor and 320K of memory as well as a expansion bus and the possibility of emulation modes for the other popular 8-Bit 6502 based systems.

We hope that this event will prove to be the rule rather than the exception in our contacts with Atari. We look forward to the release of the Diamond operating system.

INTERNATIONAL HOTLINE

=====

Conf : ST Report
Msg# : 6 Lines: 16 Read: 2
Sent : Dec 24, 1988 at 9:46 AM
To : ALL
From : CLIVE STRUDWICK
Subj : NEW Design 520 STFM

* Dateline: 24, December 1988 *

London, England

All NEW 520 STFM's being imported in to the UK have a nasty trick in store for those who want to upgrade to 1 meg by putting there own Ram chips in. The ram chips now in use are DIPs which are surface mounted and the chips are rectangular with 2 sides of four legs and 2 sides of five legs.

Is this Atari's way of forcing the user to buy the the less popular AND overpriced (compared to the 520 with a chip upgrade) 1040ST or a slick answer to the chip shortage.

Clive Strudwick
Twilightzone II
London, England

Ed Note: If Atari has solved the chip shortage answer by using the "DIP" approach it's a marvelous solution as long as the older machine owners are given a path to upgrade and keep contemporary designs. Right now, the only way is to go for the exchange (which ain't bad). Our opinion is that the user/customer should seriously consider purchasing a MEGA 2/4 before even thinking about a 1040....the price difference between the MEGA 2 and a 1040 makes this a very attractive consideration.

SPECTRE & DISCOVERY

"Peace and Tranquility"

How great a prize peace is....how nice it is to log on to the various systems and NOT read hateful messages. 'Tis mahvelous to see we all can now get back to the business of enjoying these two fine products to their fullest extent. If one were to sit back and look at the two goodies and observe just what they can do for ALL the users, we would find that two MAJOR gripes have been answered thoroughly by these two fine products.

The first gripe is echoed in many different areas, to quote: " Wow! Look at all that neat software they have for the MAC, Why ain't we getting that stuff?" Well Bunky...With Spectre your troubles are over! Your powerhouse ST will now run most MAC Software. Coupled with Discovery, the conversion to Spectre format disks is quite easy and very fast.

The second gripe is very loudly heard everytime a new and popular program hits the market. We hear folks complaining about the inability to make a personal back-up of those heavily protected programs, well the Discovery is the answer here also. In addition, Discovery is probably one of the most powerful tools any ST owner can have at his disposal, it also allows more than just two floppies to be connected to the system!

In view of the few features mentioned here about these two products, we again applaud these folks for having brought forward such fine products and hope that in the next few months we will see an increase in positive compatibility become a reality between the two.

Gadgets by Small Inc. is planning a GCR, this will become the darling of the ST community when it is released. The GCR (we shall call it that for now) will read a MAC disk directly from within Spectre and pop the icon up for the user to put to good use. The ongoing enhancements are what we should really look forward to. After all, if the developer doesn't see the encouragement coming from the userbase then there is a good chance his enthusiasm will dwindle rapidly.

If any of you have hesitated to obtain either the Discovery Cart or the Spectre Cart, don't wait any longer...these are two powerhouse goodies that will yield many hours of productive enjoyment. They are both of high design and manufacture quality and will give many hours of top notch, reliable service.

A HINT AT THE FUTURE
=====

SUBJECT: A taste of rev 2.8, and more!

Here is a sample of the features that will be added to the 2.8 software, that I am working on. Please be aware that this is just one of my projects! It probably won't be available until the end of January (1989).

For the DMFMBKUP program:

Online backup control file edit & display. More backup control files. Better support of AMIGA disk backup. More precise support of fast 11 sector format backup. Expansion of buffers to permit narrower bit widths and longer tracks. Documentation regarding the built in read analysis mode. The ability to use the ALTERNATE DESTINATION DRIVES with FILE TO FLOPPY mode.

For the DMMXFER program: direct MAC to MAC disk copying.

On a different note, and for the record:

It is illegal to copy the SPECTRE 128 or MAGIC SAC software and manuals unless you have purchased them. If you use these products without paying for them, then you are in criminal violation of the copyright laws. Even if the Discovery Cartridge is the home for your MAC ROMS, you must purchase the MAGIC SAC or the SPECTRE, to use these products legitimately.

Richard Adams
Happy Computers, Inc.

ST REPORT CONFIDENTIALÂ ¢

=====

Sunnyvale, CA

Seems the whole place is in store for some needed reorganization in the name of efficiency and perhaps a new twist! Look for added responsibilities at the Federated Stores.

Houston, TX

Looks like the negotiations are on hold for Ole' St. Nick to get done with his duties and for the New Year to arrive....

Ann Arbor, MI

MAM, Michigan Atari Magazine, has changed it's name. Beginning with the January Issue, The magazine will be known as AIM, Atari Interface Magazine..."Your Connection to the Atari User Community".

Miami, FL

Souchi! 10 lbs. of Souchi! Oh well I guess it's very much needed when using the new ATW and getting all the ducks (minnows) in school. Hope your Holiday in South Florida is great! I am sure when Julius gets back, he'll tell us all about it.

London, UK

Atari ST Consumers here are somewhat miffed at the constant flow of unannounced changes in design and components on the motherboards of the "new arrivals"

Liberty, NY

Tired of cleaning the rollers in your mouse? Sliding door getting very sloppy? You can send in your tired old mouse and get back a new mouse with "no stick" Teflon rollers and a positive latching door! Call Atari Customer Service for the cost of the exchange

Orlando, FL

Neodesk II is a quantum leap above it's predecessor. The improvements are an excellent example of "Mr. Developer" listening to the users. Neodesk II is sharp, well thought out and planned with the user in mind. It does require a bit of memory and as such it really shines in a MEGA 2/4 system. It does however, run quite well on the smaller 1040.

Jacksonville, FL

As stated in last week's STRC, TURBO ST Ver. 1.4 has been released by SOFTREK and it's author Wayne Buckholdt. It is "happy" with 99% of the programs out there. It is a superbly written program that certainly deserves the support of the userbase. Call Softrek: 407-657-4611 for your copy of the "Software Blitter"

San Diego, CA

FTL is confident that the sequel to Dungeon Master, "The Revenge of Chaos", will be shipping by the end of January 1989, and will sell for \$29.95.

CYBER TOOLS

by Krsek Inc.

I have developed two tools that are of interest to anyone owning Antic's Cyber series of animation software. One is called JOIN. This utility allows a user to create .SEQ files as large as, (or even larger), than they can play back in their machine. I used this tool to create the DREAM sequence on a one megabyte 520 ST. My problem was that I wanted to use Cyber Paint to do all my post production work but since Cyber Paint itself was taking up RAM. I was left with less than 500K in which to do my animation. The ANIMATE program is really quite small and with some RAM taken up by TOS it is possible to play sequences that expand to almost 800K when loaded into the machine.

I decided that if I wrote a utility that spliced SEQ files together I could create the animation in parts and then put them together using disk space instead of RAM. This is exactly what this tool does. You merely create your animation in pieces and then join them together into one SEQ file. This file appears as though it was created on a larger machine and saved normally in Cyber Paint. This means you can create an animation that's nearly 800K in a megabyte machine, 1800K on a two meg, etc.. Anyone who has worked with these tools realizes that animation takes up a great deal of memory and every byte you can squeeze out can make you sequences longer or more complex.

The second tool that I have written works with the new Cyber Sculpt program. This tool converts 3D files into 2D template files. Why would you want to do this? Well, I thought about doing it merely because there are things you can do in the 2D editors that you can not do in 3d and vice versa. Since some of the objects I use were purchased (i.e. Cad fonts), I do not have the template files available if I want to make minor changes in a 3D letter. The real incentive came when I wanted to copy the logo for GTE. If you have seen this logo you will have noticed it is a negative object. The letters appear as being subtracted from a larger extruded oval. As much as I tried I could not get CAD 3D to do the subtraction. I kept getting the object too complex message and I now own a mega 4 so RAM was no problem.

Since the extrude editor in Cyber Paint allows you to create objects with holes in them I thought I would create the object there. Well I realized even though I have these nicely formed, proportionate letters I couldn't use them and would have to recreate the lettering in the 2D editor to accomplish what I was after merely because there was no way to load them into the template editor.

This utility allows you to do exactly that. There is some minor preparation that has to be done in Cyber Sculpt, then the file is saved and the UNEXTRUDE utility is run on that file. Afterwards, the 2D

template created can be loaded into the spin or extrude editors of Cyber Sculpt normally. I ran this utility on my three letters, created the surround oval, extruded it normally and there was the logo without the typical tears you might see if you managed to get CAD 3D to do the subtraction. There are other handy uses for this tool. If you are like me, you have neglected to save your own templates occasionally only to wish you could make some minor adjustments at a later date. Now you can re-create them.

O.K here is the pitch. Now you too can own these handy utilities. these are GEM-based tools that would make a nice addition to any animators tool collection. Send your check or money order for \$25 and I will send you both the JOIN and UNEXTRUDE utilities. That's a mere \$12.50 per tool!

Send your order to...

KRSEK INC.
ANIMATION TOOL DISK 1
ROUTE 1, BOX 24
WHITESTOWN IN, 46075

Be sure to include your name and address with your order. Indiana residents add %5 sales tax. Cyber Sculpt, CAD 3D, and Cyber Paint are trademarks of Antic Publishing.

THIS WEEK'S QUOTABLE QUOTE

=====

Knobby Frobish Sez:

Never forget to remember, the only true sign of success, other than a million dollars, is imitation. For Imitation IS the HIGHEST form of Flattery there can possibly be!!

*** Happy Holidays to all our Friends ***

ST-REPORTÂ¢ Issue #67 "Your Independent News Source" December 26, 1988
ALL RIGHTS RESERVED '' copyright 1988

Views, Opinions and Articles Presented herein are not necessarily those of ST ReportÂ¢ or CPU ReportÂ¢. Reprint permission granted, unless noted otherwise. All reprints must include ST Report or CPU Report and the author's name. All information presented herein is believed correct, ST Report or CPU Report, it's editors and staff are not responsible for

any use or misuse of information contained in this publication.
